

# City of Detroit

## CITY COUNCIL

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TO: COUNCIL MEMBERS

FROM: Irvin Corley, Jr., Director *ICJ*

DATE: November 19, 2007

RE: Resolution to Authorize an Equipment Lease with a Market Value Purchase Option Under a Technology Investment Partners (TIP), Capital Master Lease Agreement dated July 27, 2007 between the City of Detroit and TIP Capital Investment Partners, LLC for the Detroit Water and Sewerage Department (DWSD)  
**(Recommend Approval with Conditions) For Today's 1:45 PM Discussion**

### Introduction

The City Council received from the Finance Department on August 28, 2007 the above referenced resolution to lease Sun Ray thin-client workstations, servers and related software for the DWSD.

The resolution was accompanied with a TIP Capital master lease agreement with an Equipment Schedule number 001 itemizing Sun Ray server and desktop hardware, related software, related installation services and some training services for a total of \$6,327,596. The equipment lease would be over 36 months (3 years), and the monthly lease payment would be \$181,359. Total lease payments amount to \$6,528,930; therefore financing cost over the 3-year period amounts to \$201,334. DWSD would be responsible for making the lease payments with capital dollars.

Under the market value purchase option, DWSD would be able to purchase the thin-client computer equipment and related software at fair market value. If necessary, an independent appraisal would determine FMV. However, ITS believes the Sun Ray computer equipment would have an approximate 10% residual value at the end of the 3-year lease.

If DWSD chose not to purchase the equipment at the end of the lease, the department could alternatively enter into a new lease to take advantage of computer upgrades or the latest technology, if this is the most cost-effective way to go. The useful life of the Sun Ray equipment is believed to be between 3 to 5

years. Given that under the thin-client environment most of the computer processing takes place at the server level rather than at the workstation as under a PC model, the thin-client workstations could last longer. So, it is conceivable DWSD may feel it would be best to purchase the thin-client equipment after 3 years.

If your Honorable Body approves this resolution, this would be the first computer equipment lease under the TIP Capital master lease agreement with the City. ITS feels this lease is similar to the City's other copy machine leases.

This resolution was first referred to the Budget, Finance and Audit Committee in September, but was pulled by the Administration to address questions raised by the Fiscal Analysis and Research and Analysis Divisions.

The Fiscal Analysis Division spent considerable time reviewing and analyzing the TIP Capital lease financing and DWSD thin-client infrastructure proposals because they represent a paradigm shift from computer acquisition proposals involving Personal Computers (PCs). The two set of questions raised by Fiscal and responses from the ITS Department and DWSD are attached. Council agreed to put the TIP Capital lease-financing proposal back on today's Budget, Finance and Audit Committee as a discussion item.

### **Background, and the Case for Thin-Client Technology**

DWSD currently contains approximately 1,400 PCs throughout the department. DWSD feels the PCs are obsolete, prone to failure and unreliable. In order to replace this obsolete equipment, the Sun Ray thin-client technology, manufactured by Sun Microsystems-a huge computer company, was identified as a potential solution to both possibly reduce cost and improve desktop services.

As a pilot project, DWSD purchased 94 Sun Ray workstations and 5 servers through an existing blanket purchase professional services contract for computer technology (hardware, software and related services) between Sync Technologies, Inc. and the City's ITS department. The Sync contract reference is CPO #2708903, and your Honorable Body approved it in July 2006 for a not-to-exceed amount of \$3 million.

DWSD conducted the pilot project at its Wastewater Treatment Plant since the most complex transactions occur at this plant. In addition, all of the major business applications used in DWSD are also used at the Wastewater Plant. DWSD feels the pilot project demonstrated that the Sun Ray equipment could be successfully installed, operated and supported within DWSD, and that the technology would deliver the benefits of lower cost of operation and support, and improved security. DWSD indicated the pilot project also showed additional cost

savings could be achieved if during installation servers could be consolidated and further improvements in system reliability is identified.

### **Purpose of Project and Procurement of the Sun Ray Thin-Client Equipment under the Purchasing Process**

Under DWSD's Sun Ray thin-client proposal, 1,200 workstations would be leased to replace 1,200 out of the obsolete 1,400 PCs located throughout DWSD. Some PCs would be retained or upgraded to perform intensive graphical work, involving computer aided drafting and design. The thin-client system would replace standard PC desktops running standard City and DWSD applications (word processing, spreadsheets, email, access to DRMS, etc.). Implementation of the thin-client system may reduce budgeted FTEs by a total of 4 positions. Currently, DWSD has 56 budgeted positions in its computer technology section, with 6 vacancies. We understand DWSD employees are currently receiving training on the Sun Ray equipment.

Council should note that DWSD did not send out a Request for Proposal (RFP) for the thin-client equipment infrastructure. The Sun Ray thin-client system for \$6.3 million would be purchased from Sync under the existing computer technology purchase contract. Council may recall that the Sync contract was amended in July 2007 to increase the not-to-exceed amount from \$3 million to \$8 million, which would accommodate DWSD's thin-client proposal. The contract language was also amended to allow for the leasing of the equipment and related software/services under the Sync contract. The Fiscal Analysis Division initially felt it was problematic for ITS/DWSD not to have sent out a RFP for the thin-client architecture.

ITS felt it did not need to RFP the thin-client infrastructure since it has several outstanding blanket equipment and service contracts with a number of vendors, namely, Sync, OAS, Compass Consulting, Dopar Systems, IBM and HP to purchase or lease the equipment through. When a need is identified, ITS solicits quotes from these vendors to obtain a competitive price. ITS indicated it asked these vendors to provide quotes for the Sun Ray thin-client architecture. Only two proposals were received, one from Sync and the other from Compass Consulting. The department also indicated that the two bids were close in price, and Sync was selected based on a combination of price, experience and skill. ITS further indicated that the Sync contract was awarded under the normal purchasing RFP process.

Fiscal feels that ITS's explanation for not sending out a RFP for the thin-client architecture is reasonable. However, although we feel Sync is a reputable local technology firm that is headquartered in the City of Detroit, we also feel this company may have had an advantage since the Sun Ray computer equipment purchased for the DWSD pilot project was purchased under the original Sync professional services contract.



## **TIP Capital Investors Partners, LLC**

Council should note that if you approve the TIP Capital financing resolution and master equipment lease, TIP Capital would in actuality purchase the Sun Ray thin-client infrastructure from Sync, and then in turn, would lease it to DWSD. According to ITS, TIP Capital was willing to partner with Sync to provide the financing for the project and in turn use Sync's expertise in the thin-client environment. Sync was unable to provide \$6.3 million in financing on its own.

Under the TIP Capital/City of Detroit master lease agreement, TIP Capital would retain title to the thin-client equipment throughout the lease. The company would be responsible for maintaining and replacing any faulty equipment. TIP Capital is somewhat at risk because the DWSD does not start making payments until the Sun Ray thin-client architecture is fully delivered, installed and operational. There should not be any major problems during implementation though since the equipment was already tested during the pilot project. In addition, should the City decide to return the equipment to the vendor at the end of the lease, the costs of removing and cleaning the hardware (erasing all data) would fall on TIP Capital.

Although this would be the first equipment leasing arrangement with TIP Capital if Council approves, the company has principals that have been involved with equipment lease financing projects for 25 years. TIP Capital was formed in 1998 to help corporations and municipalities manage their growing information technology equipment needs and inventories.

TIP Capital cites the following advantages to leasing:

- Disposal costs and lower equipment value is lessor's burden (Note: Fiscal feels these costs are covered somehow during the leasing arrangement, but just spread out)
- Absence of depreciation leads to tax advantages (Note: Fiscal feels this advantage helps corporations more so than governmental entities)
- Spreading cost over 2-3 years conserves capital (Note: Fiscal feels, however, that DWSD will be paying interest without getting increase in value from the equipment. Computer services could improve and savings could be achieved from the thin-client architecture, however).

ITS department feels in many cases leasing makes more sense than buying. Leasing may lead to better planning and "smoothing" out of capital cost. Specifically under this proposal, DWSD may have to spend only \$2 million in lease payments in year one rather than \$6.3 million in year one; therefore, DWSD could spend monies in year one on other important projects. ITS indicated more leasing proposals involving major computer system purchases may be presented to the Council in the future.

TIP Capital is headquartered in Bloomfield Hills, Michigan. The last two pages of the second set of responses attached provide more information on TIP Capital and the benefit of leasing over ownership.

As Council knows, several past equipment purchases made by various City departments were made through financing with GE Capital. But Finance/ITS felt the interest rate offered by TIP Capital was lower than GE Capital's. In addition, ITS indicated that GE Capital does not offer end of lease fair market purchase options.

Lastly, the Research and Analysis Division raised the question as to why the TIP Capital lease-financing proposal was not the result of a RFP process, in accordance with the Purchasing Ordinance. ITS feels the TIP Capital master lease agreement would fall under the sole source provision of the Purchasing Ordinance.

We understand the City's Law Department has formulated an opinion letter that addresses this issue. The City Council should hear from both Law and RAD on this prior to any vote on the TIP Capital financing.

#### **Cost/Benefit Analysis for the Thin-Client Proposal**

Based on inquiry, DWSD provided the Fiscal Analysis Division with a copy of a report entitled "Assessment Report: Implementation of Sun Ray Ultra Thin Client Workstations for Wastewater Operations", which was revised August 25, 2006. This report was impressive. This assessment report included a cost/benefit analysis regarding the DWSD-wide implementation of the thin-client environment.

The cost/benefit analysis compared the acquisition of 1,275 Sun Ray workstations with an equal number of PCs, showing a potential annual cost savings of \$1,354,900 with a return on investment over 150% over five years. Although the number of workstations leased is 1,200 under this proposal, DWSD still feels that the actual cost savings will exceed the estimate, when one factors in other potential benefits such as deferred data center improvements, energy cost savings, and other ancillary benefits. In addition, DWSD feels the department gains approximately \$214,000 when comparing the lease option with the outright purchase option.

The major caveat concerning the cost/benefit analysis is that it assumes DWSD would not use Microsoft Office with the Sun Ray thin-client implementation, and instead, use a lower cost workstation office environment called "StarOffice". However, it turns out DWSD would continue to use Microsoft Office during the initial phase of the thin-client implementation. For how long, the department is unsure. Therefore, the projected savings could be lower.

## **Board of Water Commissioners Approval**

Initially, the Board of Water Commissioners had not approved the Sun Ray thin-client infrastructure paradigm shift and TIP Capital financing. Based upon Fiscal and RAD inquiry, the Board approved the thin-client and lease financing proposal on October 24, 2007. Mr. Kandia Milton from the Mayor's office provided your Honorable Body a copy of the Board approval on November 8, 2007.

## **Other Issues**

The Fiscal Analysis Division raised issues about the compatibility of the Sun Ray thin-client infrastructure with Oracle/DRMS and Microsoft software. ITS responded by indicating that all of the Oracle (DRMS/HRMS/Workbrain) applications run and will continue to run on servers which are controlled by the ITS department. All users, including DWSD, access these applications via a web browser. With the new thin-client architecture, DWSD users will continue to access these applications via a web browser.

ITS also indicated the initial Sun Ray thin-client deployment will provide a standard MS Windows desktop with City-standard applications, such as Internet Explorer and MS Office. DWSD hopes to eventually move to a Firefox browser and Star Office environment. According to Oracle, ITS would have to reconfigure DRMS servers to support Firefox, but without any new purchase from Oracle.

In addition, ITS indicated that both Oracle and Workbrain (HR payroll) are certified to work in the Sun Ray thin-client environment. ITS stated that Oracle (DRMS) has been used on the Sun Ray workstations for almost two years during the pilot project.

## **Recommendation**

Based on the above analysis, we recommend approval of the TIP Capital lease-financing proposal for the Sun Ray thin-client infrastructure for the DWSD.

However, we suggest Council obtain the following before your vote:

1. Council should hear from both the Law Department and RAD on whether the TIP Capital master lease agreement could be considered a sole source contract. In addition, Council should receive a copy of any opinion letter from the Law Department supporting this claim.
2. The TIP Capital lease-financing resolution should reference and include the Board of Water Commissioners' approval of the thin-client/lease financing arrangement.

3. The TIP Capital lease-financing resolution should contain a resolve clause indicating that the DWSD provide the City Council an update on project implementation in 90 days, especially to ensure the Sun Ray thin-client infrastructure has no major compatibility issues with other City applications, such as Oracle/DRMS, HRMS/Workbrain and Microsoft and JAVA applications.

#### Attachments

cc: Council Divisions  
Auditor General's Office  
Victor Mercado, Detroit Water and Sewerage Department Director  
Sreenivas Cherukuri, Deputy Internal Technology Services Director  
Roger Short, Chief Financial Officer  
Pamela Scales, Budget Director  
Kandia Milton, Mayor's Office

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TO: COUNCILMEMBERS

FROM: Derrick Miller, CIO  
Sreenivas Cherukuri, Deputy Director

DATE: September 14, 2007

RE: DWSD/TIP Capital Master Lease

This memo is written to address the questions raised by City Council Fiscal Analysis.

The resolution before city council is to allow for the leasing of the Sun Ray Infrastructure under the TIP Capital master lease. Two key points which need to be understood:

- The contract under which the equipment is being purchased under the contract with Sync Technologies, which has already been approved (CPO #2708903).
- DWSD rate capital funds, which have already been approved for this purpose, will be paying for this project

Following are the answers to the questions provided by City Council Fiscal Analysis.

1. *Was there an RFP for this project?*
2. *Did this lease go through the regular city purchasing procedures?*
3. *Were other bids submitted?*

The equipment and services for this project are being purchased under the Sync Technologies blanket contract CPO #2708903, which was awarded via RFP through the regular city purchasing procedures.

The City of Detroit ITS department also has similar contracts with OAS, Compass Consulting, Dopar Systems, IBM, and HP. These contracts allow the ITS to procure hardware, software, and associated services from any of these vendors for all city departments. When a need has been identified, the ITS department solicits quotes from these vendors to make sure a competitive price is being obtained.

With regards to the Sun Ray project in question. ITS asked these vendors to provide quotes for the specified Sun Ray architecture. Two separate proposals were received, one from Sync, the other from Compass Consulting. The bids were close in price, and f the two Sync was selected based on a combination of experience, skill, and price.



4. *Has the city ever done business with this company before?*
5. *Why does the cover letter highlight the use of financing when this seems like a lease, similar to the city's many copy machine leases?*

The resolution at hand refers to using TIP Capital for the fair market value leasing. This will be the first lease under the TIP Capital Master Lease Agreement. This lease, is indeed, similar to the city's other copy machine leases.

6. *Why is state act 279 of 1909 being invoked as the city's authority to enter into this contract? How is this different than the copier leases?*

The law department placed this in the resolution, it is a fairly standard reference to the home rule act.

7. *Was GE Capital financing under act 99 considered?*

Yes. However, GE capital does not offer Fair Market Value (FMV) leases. With respect to this project, FMV leases give the city a greater set of options over the life of the lease. The interest rate

8. *Who in Finance was consulted on this capital lease?*

In DWSD's Finance Department, both Woodrow McCarty and John Stryker have reviewed the lease.

In the City of Detroit's Finance department, this lease has been reviewed by CFO Roger Short.

9. *How is DWSD "raising" the \$6.3 million for the equipment as stated in the cover letter?*

DWSD will be using it's rate capital to pay for the equipment being leased.

10. *If DWSD was making an outright purchase of this equipment who would be the typical vendor? What would be the estimated cost of an outright purchase?*

The equipment would have likely been purchased from either Sync or another Sun Microsystems dealer in this region. An outright purchase price would be \$6,327,595.95

11. *Would like to see a copy of the Water Board Commissions minutes/resolution authorizing this contract.*

Per Kevin Quiggle, IS Manager of DWSD

*"You are correct that the Water Board does not authorize every single purchase. In particular, purchases which are blanket releases against ITSD contracts are not reviewed by the Board.*

*With respect to the Sun Ray purchase, I believe this would be similar to the payment of support costs for HP servers (ITSD manages the contract for the City and invoices DWSD internally for the DWSD portion of the costs). DWSD Financial Services pays inter-agency invoices."*

The budgeting of these monies for this use has been approved by the Board of Water Commissioners as part of their budgeting process (per Woodrow McCarty).

*12. Does this arrangement include potential upgrades, maintenance and warranties?*

The lease includes all maintenance and warranties on all software and hardware that are procured as part of the lease. During this time, the city will be entitled to any software upgrades, patches, etc.

*13. Why did DWSD determine that they wanted to lease this equipment as opposed to buying it?*

The TIP Capital lease was developed in concert with Sync Technologies and Sun Microsystems. It has a number of advantages for the DWSD.

- DWSD is able to lease a completed solution integrating all hardware, software and services for a single price.
- DWSD is not obligated to pay until the delivered solution is accepted as operational. Thus there is no chance of DWSD paying for hardware that does not work. Also, the vendor team absorbs the risk if the project takes longer to go operational than originally expected
- Because the leasing company is retaining a 10% residual on the hardware, it essentially reduces the cities hardware cost by about 10%
- Leasing gives DWSD more options over the life of the system. Including the options to buy, extend the lease, refresh/upgrade equipment, etc.
- Should the city decide to return the equipment to the vendor at the end of the lease, the costs of removing and cleaning the hardware (erasing all data) fall on the vendor
- Leasing allows DWSD to establish standard refresh cycle for technology procurement. Also, with FMV leasing in place, DWSD is able to smooth out costs over time, rather than have IT spending as a series of unrelated one time spikes.

*14. Where in DWSD will this equipment be utilized?*

This is an enterprise-wide deployment at DWSD. It is expected to replace approximately 80% of the PCs in place. The exceptions will be highly specialized users of certain CAD/GIS applications, and certain other users who also have high graphical needs, or high processor requirements.

*15. Is this replacing current equipment or something additional?*

This equipment will displace an approximately equal number of desktops, as well as a number of file servers and application servers across DWSD.

*16. Does the city expect to use this type of arrangement for other equipment purchases in the future?*

**Yes, Fair Market Value leasing, is something that technology buyers across all enterprises are increasingly using.**

*17. What are the financing terms incorporated in the agreement?*

This agreement is a Fair Market Value lease. The city will make 36 payments from the acceptance of the "solution as delivered." In this way the entire team (Sync, Sun, TIP) is absorbing additional financial risk if the project does not deliver on time.

TIP capital is taking a 10% residual on the hardware portion of the contract (~\$293k). The interest rate is 5.5%, which compares favorably with recent rates provided by GE Capital. It is important to remember that GE capital does not offer FMV leases.

*18. Please provide in writing a "signoff" that Oracle – including DRMS, Workbrain and the new HR module - will not have any technical problems working in a thin-client environment.*

All oracle applications including DRMS have already been tested and approved by DWSD. The Workbrain test is pending.

*19. What is the standard screen size in this agreement and what is the range of available screen-size options?*

Thin clients come in two basic forms, one which includes an integrated monitor, as well as a keyboard and mouse; and another which allows the users to provide their own monitors, keyboards and mice. This project will use the Sun Ray thin client which features an integrated 17" LCD monitor.

September 12, 2007

## For Networks, Thin Is In

By **STEVE LOHR**

IN the world of information technology, the future often arrives as predicted but rarely on time. The big things that ignite new markets and change people's behavior, like the personal computer and the Internet, are actually collections of related technologies rather than single breakthroughs — symphonies rather than solo performances.

The PC revolution was the crest of a long wave of advances in chip design and software. The Internet, through decades of incubation, exploded only after millions of people began using newly affordable PCs with faster communication links and souped-up browsers.

The Internet shook the business world, but about a decade later than forecast. A similarly late though potentially revolutionary trend may finally be getting its day.

A decade ago, the network computer — also called the thin-client computer — was promoted as a replacement for personal computers and desktop software. Thin clients have no hard drives to store desktop applications, like Microsoft's Word or Excel, permanently. The leading supporters of the inexpensive, terminal-style machines were Microsoft's archrivals at Oracle and Sun Microsystems.

The market never took off in the 1990s. But the vision of a decade ago now seems within reach. Years of progress in hardware, software and networking have enabled thin computers to mimic the user experience of PCs for most tasks. Evidence that thin computing may really be catching on came in July, when Hewlett-Packard announced it would buy Neoware, a thin-client maker. The \$214 million deal sent a message: thin-client computing was a market that could not be ignored.

Several forces are rekindling the interest in thin clients, money being the most obvious. An estimated three-fourths of the annual cost of a corporate PC is attributable to technical support, software upgrades, security patches and other maintenance. Thin computing now offers an alternative. Maintenance and software fixes can be handled more efficiently on central server computers.

Without a hard drive and less need for local processing, thin computers use far less power than PCs. The yearly savings in electric bills can be \$150 or more for each desktop.

Thin computers are also far less susceptible to viruses and spyware than PCs, which store the programs that are subject to attacks by malicious codes.

"All these pieces are falling into place, and all the big guys are looking at this, both vendors and corporate customers," said Bob O'Donnell, a vice president at IDC, a technology research firm. Thin-client shipments, IDC estimates, will more than double over the next five years to 7.2 million worldwide.



The business strategy behind the thin-client push is different than it was a decade ago. Today, thin computing is not part of an anti-Microsoft crusade. The technology has "matured, by and large, around delivering the Microsoft desktop experience remotely," said Tad Bodeman, the global director of Hewlett-Packard's thin-client business.

Virtual software versions of Windows desktops, including audio and video, can be streamed to thin clients.

"It's the full desktop experience now," said Tarkan Maner, chief executive of Wyse Technology, a private company that is the leading maker of thin clients.

No one expects PCs to go away: more than 200 million are sold worldwide each year. But thin clients have strong support. Telecommunications companies in India, China and elsewhere are considering supplying households with inexpensive thin computers and selling computing as a service. And Google, Salesforce.com and others that want to deliver software applications over the Internet are also allies.

People like graphic designers, engineers and financial analysts who need lots of computing horsepower at their fingertips are not candidates for thin computers. But these devices, industry executives and analysts say, will work well for many. Over the next decade, thin computers could replace as many as 30 percent of all business PCs, Mr. Bodeman of Hewlett-Packard predicted.

In some places, the potential is even greater. To curb costs and improve patients' care by computerizing operations and records, Kaiser Permanente, the health-maintenance organization, has tripled the number of PCs it uses in its offices, clinics and hospitals to 210,000. A recent internal study concluded that half of those PCs could be replaced with thin computers, said David Watson, a consultant who was Kaiser's chief technology officer until this summer. Even two years ago, Mr. Watson said, thin-client machines did not have the graphics processing power to display X-ray and M.R.I. images.

"Now, with the latest generation of thin clients, you can do it," he said. "To be able to deliver a good clinical computing experience in the exam room could be a real cost-saving milestone."

Thin-client machines start around \$200 and can go up to \$1,000, not much lower than inexpensive PCs. Thin-computing converts speak of the lower maintenance costs of the machines, as well as greater security and flexibility.

Jenny Craig, the weight-loss company, is upgrading the computerized record-keeping and analysis tools that are available to its consultants at 500 centers around the country. It chose a thin-client approach to replace PCs.

Since November, it has put the thin computers in 380 centers. Alessandra Nicoletti, the company's director of technology, said the company was pleased with "the speed we can do things and the simplicity of managing our computer systems."

There are even notebook thin computers. In Marysville, Calif., the police force has been using them in patrol cars for more than a year. Officers can write reports, send and receive messages and tap into law enforcement Web sites.

The 32 notebooks the police bought, from Neoware, cost far less than the PCs they replaced, and the

department is saving about \$1,000 a month in technical support and repair costs, estimated Lt. Mike Kostas, support division commander.

No sensitive information, like criminal records, is stored on a notebook, which could be lost or stolen. "From a security standpoint, it's wonderful," Lieutenant Kostas said.

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Outstanding issues/questions:

- What type of DWSD work activity will be performed on the thin-client computers?

**Answer:** In general the thin client system will replace standard PC desktops running standard City and DWSD applications (word processing, spreadsheets, email, access to DRMS, etc.). It is expected that a limited number of PC systems will continued to be deployed for applications requiring intensive graphical work – primarily CADD (Computer aided Drafting and Design).

- Our major concerns involve compatibility issues. Although, we find the DWSD cost/benefit analysis impressive, questions remain. The DWSD cost/benefit analysis does not reference the Oracle architecture at all. Isn't the philosophy of ITS is to encourage uniformity citywide, so that DWSD doesn't continue to "standalone"? More specific compatibility questions:

**Answer:** It is important to understand that all of the Oracle (DRMS/HRMS/Workbrain) applications run and will continue to run on servers which are controlled by the ITS department. All users, including DWSD access these applications via a web browser. With the new thin client architecture, DWSD users will continue to access these applications via a web browser.

1. The DWSD document indicates DWSD will be using Firefox as their Web browser instead of MS Internet Explorer, and Star Office as the desktop application rather than MS Office. Does DRMS/Oracle support Firefox as a browser choice? If not, would this require modifications to the DRMS servers? Would such modifications be very expensive that the City would have to pick up?

**Answer:** The initial Sun Ray deployment will provide a standard MS Windows desktop with City-standard applications (specifically, Internet Explorer and MS Office). It is believed that implementing the Firefox browser will provide additional benefits, but this is not a requirement. Oracle has indicated that DRMS will work with Firefox if the DRMS servers are configured to support this – this would require additional configuration work from ITSD, but would **not** require any additional purchase from Oracle.

2. We know that DRMS can export information to MS Office - has anyone tested this with Star Office?

**Answer:** MS Office is being provided on the thin client; this will not be an issue. However, for future reference it should be noted that DRMS actually exports to MS Office *formats*; Star Office can open files in these formats should that be necessary.

3. Does the SunRay architecture run on a 32-bit or 64-bit format, because we understand DRMS/Oracle runs under a 32-bit format? If the SunRay were 64-bit, wouldn't these cause compatibility problems? Would the 64bit have to be loaded on the DRMS/Oracle platform, at a huge cost?

**Answer:** The Sun Rays will be implemented in a 32 bit mode.

4. We understand that Java software amplifies the internet browser. The Java on the DRMS/Oracle platform is 32-bit. What version of Java will be run on the SunRay architecture? If the Java on SunRay is 64-bit, doesn't this cause compatibility and support problems? Would the City support the new Java version on the SunRay platform?

**Answer:** The Sun Rays will be implemented in a 32 bit mode. The version of Java required by DRMS/Oracle will be installed.

5. We need something in writing from Oracle and from the DRMS support people that say they will support the SunRay non-standard environment, and that the proposed architecture is certified by Oracle. Certification means that Oracle would agreeing to provide support to resolve any problems that may arise in the operation of the Oracle software on the proposed SunRay system. We also need in writing that Work Brain has been tested on the new DWSD architecture, and will be supported by the vendor if problems arise.

**Answer:** The Sun Ray is being implemented to provide a standard MS Windows environment. This includes the following requirements:

- Internet Explorer 6.0(+)
- SUN JRE 1.4.2\_13(+), Fixpack 15 and above

These specific technical requirements will be provided in the Sun Ray implementation. Both applications Oracle and Workbrain are certified to work in this environment. It is important to understand that these applications are both server based applications which serve out to the users through a thin web-based client. Thus there is nothing installed on the clients themselves.

Oracle (DRMS) has been used on these workstations for almost two years in the pilot environment. Also DWSD has tested these applications and will run all development scripts to confirm full functionality.

- In Board approval document, explain "Sun Ray provides all of the required desktop capability of a PC (with a few exceptions-in these cases PCs will continue to be used), with additional capabilities not economically available with a PC."

**Answer:** In general the thin client system will replace standard PC desktops running standard City and DWSD applications (word processing, spreadsheets, email, access to DRMS, etc.). It is expected that a limited number of PC systems will continued to be deployed for applications requiring intensive graphical work – primarily CADD (Computer aided Drafting and Design).

- Cost savings of \$1 ,354,900 seems misleading because the thin-client cost is over a five-year period rather than a three-year period. If over a three-year period, savings appear to be \$812,940; still a pretty good number though. But this number could be smaller if what happens at end of the least is not considered. But on the other hand, the \$812,240 figure could go up if savings from deferred data center improvements,



energy cost savings and other ancillary benefits are factored in. However, where and how does the five year cost/benefit analysis takes into account the amount DWSD will have to pay at the end of the lease to either purchase the equipment at Fair Market Value, continue the lease at some unknown amount, negotiate a new lease or purchase/lease new equipment for the remainder of the five-year cost/benefit analysis period?

**Answer:** The use of a five year time frame is done because thin client architecture represents a paradigm shift which should enable a much longer deployment at the client. This is a significant advantage of the technology, but creates some difficulty in doing an apples-to-apples comparison.

At lease end, it will be DWSD's option to extend the leasing of the equipment at the end of the lease, or to replace it with newer servers, etc. In both cases the cost going forward is projected to be less than the current expenditure.

- Pilot Sun Ray technology project was performed at the Wastewater Treatment Plant, with an installation of 94 desktop units. Pilot project showed lower cost of operation and support, and improved security. Why wasn't the water side of DWSD tested, too?

**Answer:** The Wastewater Plant was chosen because it presented the most difficult test of the Sun Ray technology (for example, the need to install in a "factory environment" in some cases), a broad range of applications, and a broad range of "technology users" (from personnel who had not previously used a computer in their work, to "power users" who used a computer routinely). In addition, all of the major business applications used in DWSD are also used at the Wastewater Plant. In short, the Wastewater Plant provided a test environment which was an effective representation of the entire department.

- Cost/benefit analysis indicated ITS has desired that future technology acquisitions for the City of Detroit be leased instead of purchased, to the greatest extent possible. Is this the wave of the future under ITS?

**Answer:** In many cases, leasing makes more sense than buying. Ideally investment in technology should be a "smooth" flow. This allows for effective planning and allocation of resources. The reality is that most technology is purchased in spurts, as project needs dictate – however this leads to a feast or famine mentality and an suboptimal allocation of resources.

Leasing allows ITS to smooth out capital costs into a steady stream of payments over the life of the product, thus from a planning standpoint, it becomes easier to understand the ongoing investment in technology. Leasing is a practice that is widely embraced in industry, and is gaining an increasing presence in government.

- What other equipment has purchased/leased under Sync Technologies equipment contract that is now not to exceed \$8 million? Actually, it appears ITS already know the contract would cover the \$6.3 million equipment leasing.

**Answer:** The ITS contract with Sync Technologies, is one of several similar hardware.

contracts. Over the life of the contract a number of large and small purchases by various departments are likely to have been made. Generally the vendors don't use up all of the dollars under these contracts. Among the other purchases made against this contract, last year approximately 60 PCs for the law department were purchased under this contract.

- TIP Capital financing resolution states useful life of equipment is 3 to 5 years.

**Answer:** The useful life is primarily a "financing" concept useful in determining allowable terms for leasing, and whether or not leases qualify as capital or operating lease for tax and depreciation purposes.



## ***CORPORATE OVERVIEW***

Technology Investment Partners, LLC dba TIP Capital was formed in January, 1998 to help corporations and municipalities effectively manage their growing information technology equipment inventories. Life-cycle disciplines designed to maximize computing efficiency and cost effectiveness are key drivers to our orientation.

TIP Capital's lease procurement model hosts a menu of value added services. Flexibility and customization of transaction processing, lease administration, portfolio management, and end of lease support services are the foundation of TIP Capital's business model. Added to our more traditional features are, equipment remarketing, lease restructuring, and portfolio acquisition services. The programs are presented to end-user customers by experienced National Account Executives.

In today's computing environment, leasing is justified as a tool to support comprehensive plans for the systematic updating of business assets. Among the many benefits, leasing will help lessees avoid many of the costs associated with ownership. Ala Carte or combined, TIP Capital's leasing services, portfolio management, de-acquisition/remarketing services, electronics division, consulting, and web development services can be tailored to achieve maximum effectiveness. Each program is structured to help you manage Total Cost of Ownership (TCO) while maximizing product life cycles in the most cost effective and systematic manner.

## **TIP CAPITAL CORPORATE STRUCTURE:**

Technology Investment Partners, L.L.C. dba tip | Capital  
A Limited Liability Company (for profit)

Headquarters and Operations Center:  
40950 Woodward Avenue  
Bloomfield Hills, MI 48303

## **TIP CAPITAL CREDENTIALS:**

- ☐ Dun & Bradstreet Number: 15-791-0873
- ☐ Federal Identification Number: 38-3452691
- ☐ Source(s) of lease discounting – northeastern U.S. insurance investor, nationally recognized banks and private investors.
- ☐ Funding relationships used for assignment of payment streams, TIP Capital maintains control of leased assets during possession of equipment by lessees.

## **SPECIFIC ADVANTAGES TO LEASING**

### **Disposal costs and lower equipment value is lessor's burden**

Buy a computer today and it's quite likely going to cost less tomorrow. Plus, disposal costs average \$90.00 per unit.

### **Absence of depreciation leads to tax advantages**

Purchased computers must be capitalized and depreciated over the life span but they usually don't reach the IRS depreciable minimum of five years. Lease payments, in many cases, can be treated as a business expense.

### **Spreading cost over 2-3 years conserves capital**

You can lease three times the equipment you would have bought.

## **WHAT SETS TIP CAPITAL APART?**

- ☐ Database management software enhances corporate governance
- ☐ Non-manufacturer brand specific
- ☐ Capacity to exceed customer requirements for customized equipment schedules and invoicing
- ☐ Unique rate calculator formula offers rate predictability
- ☐ Help improve supply chain administration process to control costs
- ☐ Formal customer orientation process produces Statement of Work document
- ☐ Tailored payment frequency
- ☐ Toll-free 24/7 phone access
- ☐ Secure Web based client information library which houses customer relationship material

## **WHAT THE EXPERTS SAY ABOUT LEASING**

"Leasing is rapidly becoming a standard practice within the arsenal of tools available to manage the desktop." – *Gartner*

"A purchase is a commitment that a firm may loathe when technology is changing rapidly. With leasing, a user can reduce up front costs and utilize advances in technology." – *Investor Business Daily*

"The biggest benefit leasing offers is the flexibility for upgrading technology." – *LAN Magazine*

"Leasing is an attractive alternative where ownership can adversely affect the corporate balance sheet, particularly for equipment that will become obsolete years before it is fully depreciated." – *Gartner*